

## CLAIMS

What is claimed is:

1 <sup>SUB</sup><sub>31</sub> 28. A medicament comprising a plurality of coated drug particles, each of said coated  
2 drug particles having an average particle size of less than 500  $\mu\text{m}$  in diameter, the surface of said  
3 particles comprising at least a first coating layer of biodegradable and bio-compatible material,  
4 wherein an average thickness of said coating layer is between 1 and 500 nm.

29. A medicament comprising a plurality of coated drug particles, each of said coated  
drug particles having an average particle size of less than 500  $\mu\text{m}$  in diameter, the surface of said  
particles comprising at least a first coating layer of biodegradable and bio-compatible material,  
wherein an average thickness of said coating layer is between 1 and 500 nm, the coated drug  
particles being obtainable through a process comprising depositing said polymeric coating  
particles onto the surface of host drug particles by a process comprising pulsed laser ablation.

1 30. The medicament according to claim 28, wherein said coating layer material is at  
2 least one selected from the group consisting of PLA, PGA, PLGA and cellulose compounds.

1 <sup>SUB</sup><sub>32</sub> 31. The medicament according to claim 28, wherein said coated drug particles have  
2 an average particle size of less than 100  $\mu\text{m}$  in diameter.

1 32. The medicament according to claim 28, wherein said coated drug particles have  
2 an average particle size of less than 10  $\mu\text{m}$  in diameter.

1 33. The medicament according to claim 28, wherein said coated drug particles have an  
2 average particle size of less than 1  $\mu\text{m}$  in diameter.

1 34. The medicament according to claim 28, wherein said coated drug particles have an  
2 average particle size of less than 0.1  $\mu\text{m}$ .

1 35. The medicament according to claim 28, wherein the average thickness of said  
2 coating layer is between 1 and 400 nm.

1 36. The medicament according to claim 28, wherein the average thickness of said  
2 coating layer is between 3 and 200 nm.

1 37. The medicament according to claim 28, wherein the average thickness of said  
2 coating layer is between 5 and 50 nm.

1 38. The medicament according to claim 28, wherein the average thickness of said  
2 coating layer is between 50 and 500 nm.

1 39. The medicament according to claim 28, wherein the average thickness of said  
2 coating layer is between 150 and 500 nm.

1 40. The medicament according to claim 28, wherein the average thickness of said  
2 coating layer is between 300 and 500 nm.

1 41. The medicament according to claim 28, wherein the average size of said coated  
2 drug particles is less than 50 nm in diameter.

1 42. The medicament according to claim 28, wherein the average size of said coated  
2 drug particles is less than 30 nm in diameter.

1 43. The medicament according to claim 28, wherein the average size of said coated  
2 drug particles is less than 10 nm in diameter.

1 44. The medicament according to claim 28, wherein the average size of said coated  
2 drug particles is less than 5 nm in diameter.

1 45. The medicament according to claim 28, wherein said coating layer is a continuous  
2 layer.

1 46. The medicament according to claim 28, wherein said coating layer is a  
2 discontinuous layer.

1 47. The medicament according to claim 46, wherein said discontinuous coating layer  
2 results in biphasic dissolution rates of drugs.

1 48. The medicament according to claim 28, wherein said coated drug particles  
2 comprise at least one drug selected from the group consisting of anti-allergics, antibiotics, anti-  
inflammatory and bronchodilatory drugs.

1 49. The medicament according to claim 28, wherein said coated drug particles  
2 comprise at least one drug selected from the group consisting of <sup>steroid</sup> budesonide, <sup>steroid</sup> triamcinolone  
3 acetoneide and rifampicin. *rifampin TM?*  
4 *Antibiotic*

50. A pharmaceutical formulation comprising the medicament of claim 28.

*duplicate obv. rej.*

1 51. The formulation according to claim 50, wherein said formulation has from 0.01%  
2 to 10 % by weight of said medicament relative to the total weight of said formulation.

1 52. The formulation according to claim 50 containing from 0.1 % to 1 % by weight of  
2 said medicament relative to the total weight of said formulation.

1 53. The formulation according to claim 50, wherein about 20 % to about 50 % by  
2 weight of said medicament is a respirable fraction.

1 54. The formulation according to claim 50, wherein at least 50 % by weight of said  
2 medicament is a respirable fraction.

1 55. The formulation according to claim 50, further comprising at least a second  
2 medicament.

1 56. The formulation according to claim 55, wherein said second medicament is a  
2 particulate medicament.

1 57. The formulation according to claim 55, wherein said second medicament  
2 comprises a medicament in accordance with claim 28.

1 58. The formulation according to claim 50, further comprising a first bronchodilatory  
2 medicament and a second medicament, said medicaments each being at least one selected from  
3 the group consisting of anti-inflammatory agents, bronchodilatory agents, antibiotic agents and  
4 anti-allergic agents.

1 59. The formulation according to claim 50, further comprising structure for aerosol  
2 administration of said formulation.

1           60.    The formulation according to claim 59, wherein said structure for aerosol  
2   administration includes a propellant.

1           61.    The formulation according to claim 60, wherein said propellant is at least one  
2   selected from the group consisting of fluorocarbons and hydrogen-containing  
3   chlorofluorocarbons.

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62.    A therapeutic kit comprising the medicament of claim 28 and instructions for the  
administration of said medicament.

63. A therapeutic kit comprising the formulation according to claim 50 and instructions  
for the administration of said medicament.

64.    The therapeutic kit of claim 62, further comprising an aerosol delivery apparatus  
2   or a medical device suitable for pulmonary administration of said medicament.

1           65.    The therapeutic kit of claim 63, further comprising an aerosol delivery apparatus  
2   or a medical device suitable for pulmonary administration of said medicament.

1   SB 66.    The use of coated drug particles as defined in claim 28 for the manufacture of a  
2   medicament for treating a respiratory disorder or pulmonary infection in a human patient.

1 SUB  
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2 67. The use of a formulation according to claim 50 for the manufacture of a medicament  
for treating a respiratory disorder or a pulmonary infection in a human patient.

1 68. A method of preparing the medicament of claim 28, the method comprising the  
2 step of depositing onto the surface of a host drug particle at least a first layer that comprises a  
3 plurality of polymeric coating particles by a process comprising pulsed laser ablation under  
4 vacuum.

69. The method according to claim 68, wherein said pulsed laser ablation process  
comprises providing a laser which emits radiation having a wavelength of about 240 to about 280  
nm.

70. The method according to claim 69, wherein said pulsed laser ablation process  
comprises providing a laser which emits radiation having a wavelength of about 248 nm.